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## Energy Future System Operator Consultation

### Response from The Crown Estate

September 2021

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#### Introduction

The Crown Estate is an independent commercial business created by an Act of Parliament to manage a diverse portfolio that includes the seabed around England, Wales and Northern Ireland. In this capacity we work closely with industry and stakeholders to enable the sustainable development of the seabed, including by providing seabed rights for offshore renewable energy, as well as marine aggregates and minerals, cables and pipelines, and carbon capture and storage.

Beyond leasing, we play an active role in developing and helping to sustain the UK offshore wind sector as a whole, working together with industry, government, regulators and our many stakeholders to unlock the potential of our world-class seabed resources, while balancing the wide range of interests in the marine environment. We do this by taking a long-term view, working to identify and address common challenges, through using our unique role to convene all stakeholders with an interest in the marine environment.

We welcome this consultation on the proposal to introduce a Future System Operator (FSO). With the scale and pace of delivery of clean energy required to deliver the UK's Net Zero emissions targets, it is the right time to re-consider the core function of system operation to ensure it supports the energy transition and minimises cost and disruption for consumers.

Central to the net zero transition will be offshore wind, which is expected to form the backbone of the UK's electricity generation fleet as we decarbonise the power sector. Alongside other clean technologies such as CCUS, and other infrastructure such as interconnectors, this growth will put pressure on available seabed space. For these reasons, there will be an increasing importance and focus on the spatial context of development in the marine environment, which needs to be managed in a way which is inclusive of wider environmental and societal needs. Ensuring the FSO can take into account these broader factors, and the reforms being proposed, will help enable this. We expect therefore that there will be a range of strategic and operational matters which will form touchpoints between The Crown Estate and the FSO, not least in terms of spatial planning and leasing. We look forward to working with the new organisation, building on the positive relationship we currently have with National Grid Electricity System Operator (NGESO).

#### Evolution of The Crown Estate

Given this consultation is about significant industry reform, we are taking the opportunity to set out up front how The Crown Estate is evolving its approach to the marine environment as part of the UK's drive toward delivering Net Zero emissions by 2050.

For the past 260 years, The Crown Estate has managed a large and diverse portfolio of real estate assets. During that time, we have changed the way we have managed our portfolio to adapt to the social and economic needs of the day to maximise the value we create for the country. As we look to repair our economy and society from the fallout from Covid-19 and face up to long-term challenges

like climate change and the rise of technology, we need to adapt again. However, we know that to do this well we must change how we do business to focus on addressing national and global challenges.

We have identified three core strategic challenges facing the marine environment:

- **A need for greater spatial coordination:** Achieving 2050 targets will require technologies and other marine uses to effectively co-locate. From our analysis we know that a significant proportion of the total offshore wind key resource area is already utilised or overlaps with existing seabed use or environmental designations, so more efficient use of the seabed is needed to meet rapidly growing demand on a congested space. Furthermore, the environmental impacts of technology deployment is also a significant and growing constraint to further development.
- **A need for a quicker and more consistent route to market:** The future of offshore wind is not just about offshore wind – it is increasingly dependent upon resolving the future of other emergent technologies, infrastructure, and environmental issues. However, responsibilities for strategic decision-making and resolving competing interests require further clarity.
- **A need to unlock significant private investment:** The Climate Change Committee estimates that ~£20bn p.a. investment is required in the power sector to deliver overall our Net Zero emissions target by 2050. This investment will drive down technology costs, unlock supply chains and alleviate environmental constraints. Clarity around policy and regulatory frameworks will be necessary to maintain investment in more mature technologies whilst stimulating investment in nascent technologies (such as hydrogen).

Many of these issues are widely known and they will require a range of actors – Government, regulators, statutory bodies and the private sector – to work together to deliver the right outcomes. The Crown Estate is planning to take three distinct actions to address these strategic challenges:

1. **Re-thinking our approach to leasing:** We recognise that our approach to the way in which the seabed is leased will need to change in order to support delivery against the UK's Net Zero emission targets, as well as to optimise use of a constrained seabed space and encourage co-location of technologies where feasible. Specifically we will be driving toward an agile and repeatable leasing process that is integrated across seabed uses. We will also explore front-loading activity to accelerate development, such as investing in pre-consenting works and surveys. As part of this, we are working collaboratively through the current Offshore Transmission Network Review to consider ways in which our leasing approach supports delivery of holistic and coordinated network planning, both onshore and offshore.
2. **Building a data and evidence capability:** We will continue to invest in our data and evidence capability to de-risk consenting and accelerate development, building on the spatial analysis we already do as part of our leasing rounds and also our Offshore Wind Evidence and Change (OWEC) programme<sup>1</sup>. This enhanced capability will enable us to utilise spatial and evidentiary inputs to improve strategic decision-making and inform trade-offs between seabed uses. We expect this enhanced data capability will be an important source of information for the FSO.
3. **Investing to accelerate development:** We are considering how we best put our own capital at work to remove market barriers and unblock supply chain constraints. This could include enabling investments into data and evidence as per outlined above, and also investments in infrastructure,

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<sup>1</sup> <https://www.thecrownestate.co.uk/en-gb/what-we-do/on-the-seabed/offshore-wind-evidence-and-change-programme/>

such as the potential for anticipatory investment into grid – albeit discrete opportunities would need specific analysis and a business case.

We believe these changes will allow us to play a more active role alongside the FSO, supporting strategic change across the energy system that benefits consumers and delivers economic value for the nation.

### Responses to issues raised in the consultation

It is clear offshore wind will play a major role in delivering against the UK's Net Zero emissions targets, and the Government's 40GW target by 2030 will be a significant step toward decarbonising our power system. At present there is over 10GW of operational capacity in UK waters, with a pipeline of in excess of 60GW (inclusive of the potential for 10GW from Crown Estate Scotland's Scotwind process). This pipeline includes the six 'preferred projects' that were successful in the Round 4 tender process, which concluded in February 2021<sup>2</sup> (the award of rights for these projects being subject to the Round 4 Habitats Regulations Assessment). Furthermore, in March 2021, we announced that work was commencing on the design of a new leasing opportunity for early commercial-scale floating wind in the Celtic Sea region<sup>3</sup>, which will be an important step towards delivering on the Government's ambition for 1GW of floating wind by 2030. This all builds toward an expectation that 100GW or more of offshore wind may be needed by 2050, as recommended by the Climate Change Committee in its 6<sup>th</sup> Carbon Budget<sup>4</sup>.

While we support the overall thrust of the consultation, we wanted to outline three areas in response to the questions posed:

- **Whole systems approach:** We support confirmation in the consultation that future system planning and network development should have a greater focus on the energy system as a whole, including both electricity and gas. As has been well documented, there have been recent challenges for offshore wind connections in the east of England as a result of impacts of the associated onshore grid infrastructure. Given this, making whole system planning a specific function of the FSO should help mitigate some of these challenges by allowing it to consider broader implications and impacts, including where there are different types of infrastructure projects developing in similar locations. As part of this new approach, it will be important that the FSO works collaboratively with stakeholders including The Crown Estate to understand specific issues or challenges in the context of the marine environment, particularly given our remit extends beyond offshore wind and encompasses other infrastructure such as pipelines, telecoms cables and interconnectors.

The marine environment is vital for the UK's prosperity and supports a wide range of nationally important sectors including fishing, tourism and shipping, leisure, energy and digital infrastructure. Given the expected deployment of offshore wind over the coming years, the whole system planning function will need to develop an appreciation of these broader uses of the seabed when considering design and development of the associated network infrastructure. Alongside the needs of different seabed users, it also will be essential to factor in explicitly environmental (including biodiversity) and societal factors as well. We are closely involved with the parallel initiative of the Offshore Transmission Network Review (as a Project Partner) and will continue to

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<sup>2</sup> <https://www.thecrownestate.co.uk/en-gb/media-and-insights/news/2021-offshore-wind-leasing-round-4-signals-major-vote-of-confidence-in-the-uk-s-green-economy/>

<sup>3</sup> <https://www.thecrownestate.co.uk/en-gb/media-and-insights/news/the-crown-estate-to-create-new-floating-wind-leasing-opportunity-in-the-celtic-sea/>

<sup>4</sup> <https://www.theccc.org.uk/publication/sixth-carbon-budget/>

work with Government, Ofgem, NGESO and wider stakeholders on these issues through that forum as well as with the new FSO in due course.

- **New advisory role:** We note with interest that the FSO could have a new advisory role to support policy and regulatory decisions, and that there may be a case for extending this expertise to other public organisations. The Crown Estate has recently entered into a new partnership with NGESO<sup>5</sup>, which will see us working collaboratively to support the development of a more coordinated approach to the delivery of transmission infrastructure for offshore wind projects. This arrangement allows both organisations to draw upon respective expertise to support delivery of a key policy objective. We look forward to exploring potential other areas where the FSO's expertise and data could support our work.
- **CCUS and hydrogen:** Although detail is limited in the consultation, we agree in principal that the FSO could have a role in the development of the networks for CCUS and hydrogen. This will ensure it is genuinely able to take a whole systems approach by considering the needs of different technologies in parallel. We look forward to engaging with the detail on the FSO's responsibilities in these areas as they become clearer.

We would be more than willing to provide additional information on any of the points we have raised above and be very pleased to discuss these matters with you further.

All of this response may be put into the public domain and there is no part of it that should be treated as confidential.

Yours Sincerely,

A handwritten signature in blue ink, appearing to read "Richard Clay", with a stylized flourish at the end.

Richard Clay,

**Senior Manager, Energy Policy & Regulation**

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<sup>5</sup> Statement of Intent agreed in September 2021, <https://www.thecrownestate.co.uk/en-gb/what-we-do/on-the-seabed/energy/>